

ADDENDUM NO. 2

VA70114B0111  
Construction of the Salt Lake City, UT  
Combined Heat and Power (CHP) Plant

May 9, 2014

From: AMEC Environment & Infrastructure, Inc.  
511 Congress Street, Suite 200  
Portland, Maine 04101

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 3, 2014 as noted below. Acknowledge receipt of Addendum number 2 in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

**General Provisions**

1. No changes

**Changes to Bidding and Contract Requirements**

1. No Changes

**Changes to Technical Specifications**

1. 23 64 00: Delete paragraph 3.2 C. There is no refrigerant piping specified on this project, and therefore no refrigerant piping specification.
2. 23 21 13: Hydronic Piping

Add paragraph 2.2F as follows:

F. Fuel Oil Supply and Return, Fuel Oil Fill, Fuel Oil Vent, and Starter Compressed Air Piping:

1. Stainless Steel: ASTM A312, Schedule 10.

Add paragraph 2.3E as follows:

E. Fittings for Stainless Steel:

1. Stainless steel butt-welded fittings, Type 316, Schedule 10, conforming to ANSI B16.9.
2. Grooved fittings, stainless steel, Type 316, Schedule 10, conforming to ASTM A403. Segmentally fabricated fittings are not allowed. Mechanical grooved

couplings, ductile iron, ASTM A536 (Grade 65-45-12), or malleable iron, ASTM A47 (Grade 32510) housing, with EPDM gasket, steel track head bolts, ASTM A183, coated with copper colored alkyd enamel.

3. Change all references to Ethylene Glycol throughout this project to Propylene Glycol, using the same glycol/water concentrations listed. The engine coolant shall be Propylene Glycol to minimize environmental impacts. Specifications with references to Ethylene Glycol include:

23 25 00: HVAC WATER TREATMENT

Change paragraph 2.4

From: "Basis of design uses inhibited ethylene glycol."

To: "Basis of design uses inhibited propylene glycol."

48 20 10: NATURAL GAS-FUELED COMBINED HEAT & POWER FACILITY GENERAL REQUIREMENTS

Change paragraph 2.4 G6

From: "Coolant shall be a solution of 35 percent (volume) ethylene-glycol-based antifreeze and 65 percent water"

To: "Coolant shall be a solution of 35 percent (volume) inhibited propylene-glycol-based antifreeze and 65 percent water"

#### **Changes to Contract Drawings**

1. Replace the following structural drawings with drawings reissued with this addendum. These drawings show revisions and clarifications for supporting reconfigured piping and exhaust system at revised locations.

SB-101 BUILDING 6 GENERATOR ROOM FOUNDATION PART PLAN

SF-101 BUILDING 6 GENERATOR ROOM ROOF FRAMING PART PLAN

S-502 FRAMING SECTIONS AND DETAILS

2. MP-201 ELEVATIONS

Add 22 inch ID x 18 inch ID Insulated Exit Cone to top of stack with vertical (upward) discharge designed to increase discharge velocity 1.5 times and provide weather protection of the space between inner pipe and outer pipe.

3. Replace the following mechanical drawings with drawings reissued with this addendum. These drawings show revisions and clarifications for routing the new hot water and chilled water piping.

M-102 FIRST FLOOR PLAN

MP-111 BUILDING 6 BASEMENT FLOOR AC STEAM MECHANICAL PIPING PART PLAN

MP-112 BUILDING 6 MECHANICAL ROOM BASEMENT FLOOR MECHANICAL PIPING PART PLAN

MP-113 BUILDING 7 BASEMENT FLOOR MECHANICAL PIPING PART PLANS

MP-121 BUILDING 6 GENERATOR ROOM FIRST FLOOR MECHANICAL PIPING  
PART PLAN

MP-122 BUILDING 7 FIRST FLOOR MECHANICAL PIPING PART PLAN

MP-501 PROCESS PIPING FLOW DIAGRAM

MP-502 PROCESS PIPING FLOW DIAGRAM

4. MI-601 SYSTEM SEQUENCE OF OPERATION

Change paragraph 1.2 B 6b

From b. The sump drain valves shall be opened

To b. The sump drain valves ACV-2 and ACV-4 and fill riser drain valves ACV-2A  
and ACV-4A shall be opened. ACV-2A shall be interlocked with ACV-2 to  
operate from the same digital output. ACV-4A shall be interlocked with ACV-4  
to operate from the same digital output.

5. Replace MH-121 with the reissued drawing. This drawing shows revisions to the silencer and  
catalyst layout.

MH-121 BUILDING 6 GENERATOR ROOM FIRST FLOOR MECHANICAL  
DUCTWORK PART PLAN

6. MD-121 BUILDING 6 GENERATOR ROOM FIRST FLOOR DEMOLITION PART PLAN

The gate valve in the steam piping at the flange above the entry door shall be removed during  
demolition.

7. M-101 BASEMENT FLOOR PLAN

Change label on pipes in pipe tunnel between building 6 and building 7

From 6" HWS/R in pipe tunnel

To 5" HWS/R in pipe tunnel

8. MP-601 MECHANICAL SCHEDULES

HEAT EXCHANGER SCHEDULE

Change references in schedule under FLUID for HX-1 and HX-2

From: 35% EG

To: 35% PG

Change note 1

From: CAPACITY BASED ON 35% ETHYLENE GLYCOL - WATER SOLUTION AT 30°F

To: CAPACITY BASED ON 35% PROPYLENE GLYCOL - WATER SOLUTION AT  
30°F

## EXPANSION TANK SCHEDULE

Change references in schedule under FLUID for ET-1 and ET-2

From: 35% ETHYLENE GLYCOL

To: 35% PROPYLENE GLYCOL

Change note 1

From: CAPACITY BASED ON 35% ETHYLENE GLYCOL - WATER SOLUTION AT 30°F

To: CAPACITY BASED ON 35% PROPYLENE GLYCOL - WATER SOLUTION AT 30°F

## PUMP SCHEDULE

Change references in schedule under FLUID for P-1A, P-1b, P-2A and P-2B

From: 35% EG

To: 35% PG

Change note 1

From: SELECTED AND PROVIDED BY GENSET CONTRACTOR. HEAD IS ESTIMATED AT 14.0 PSI ENGINE AND 5.0 PSI HX-1. PUMP SHALL BE SELECTED FOR FLOW RATE AND HEAD OF ENGINE AND HX INSTALLED. PUMP CAPACITY BASED ON 35% ETHYLENE GLYCOL - WATER SOLUTION AT 30°F

To: SELECTED AND PROVIDED BY GENSET CONTRACTOR. HEAD IS ESTIMATED AT 14.0 PSI ENGINE AND 5.0 PSI HX-1. PUMP SHALL BE SELECTED FOR FLOW RATE AND HEAD OF ENGINE AND HX INSTALLED. PUMP CAPACITY BASED ON 35% PROPYLENE GLYCOL - WATER SOLUTION AT 30°F

Change note 2

From: BACKUP PUMP WITH AUTOMATIC ALTERNATING AND BACKUP CONTROL. SELECTED AND PROVIDED BY GENSET CONTRACTOR. HEAD LISTED IS EXTERNAL TO ENGINE AND HX. PUMP CAPACITY BASED ON 35% ETHYLENE GLYCOL - WATER SOLUTION AT 30°F

To: BACKUP PUMP WITH AUTOMATIC ALTERNATING AND BACKUP CONTROL. SELECTED AND PROVIDED BY GENSET CONTRACTOR. HEAD LISTED IS EXTERNAL TO ENGINE AND HX. PUMP CAPACITY BASED ON 35% PROPYLENE GLYCOL - WATER SOLUTION AT 30°F

## 9. MP-602 MECHANICAL SCHEDULES

### HEAT RECOVERY STEAM GENERATOR SCHEDULE

Under the Exhaust heading, change the static pressure drop listed under SP, IN WC

From 0.5

To 1.21

## EXPANSION TANK SCHEDULE

Change references in schedule under FLUID for AS-1 and AS-2

From: 35% ETHYLENE GLYCOL

To: 35% PROPYLENE GLYCOL

Change note 1

From: CAPACITY BASED ON 35% ETHYLENE GLYCOL - WATER SOLUTION AT 30°F

To: CAPACITY BASED ON 35% PROPYLENE GLYCOL - WATER SOLUTION AT  
30°F

**END OF ADDENDUM NO. 2**